Yi2
7397
F 2

2

Of animal life - continued.

Of animal life in Sleep . 48
Of Do in different ages
Do in the fœtus in utero 73
—— in Infancy —— 74
—— in Childhood —— 77
—— in Youth —— 78
—— in Middle life —— 79
—— in Old age —— 80
—— in persons born deaf
—— blind & Dumb. 87
—— in Idiots —— 89
—— In persons who fast
long —— 91

Further observations on animal life

see nº 6. p: 268.
nº 7 p: 281
Dº p: 283 -
D p 298
nº 13. p: 475

Introduce among inferences.
The "extremities of nerves & origin, & the brain, the termination of them"
ed pathology no. 1 · p: 25
also nº 9 - 398 · 399

~~I propose now to inquire into the~~
different degrees of Animal life as ex=
=emplied in the Sleeping State, and in its
different ~~Periods~~ States of human life.

The Stimuli which have, menti=
=oned when they act collectively produce
& within certain bounds
a healthy waking State. —

But they do not always act
~~not~~ in a determined & regular degree.
collectively. There is sometimes a deficiency
or absence of some of them. — How then
is life maintained in such cases? I
answer by the increased action of
such stimuli as remain. This Gen=
=eral law is a law of the System. I shall
it
~~I~~ exemplify in several instances
presently, & hereafter in many more

v Horses in a warm stable eat less than
in a cold one - owing to the stimulus
of heat supplying the absence of the
stimulus of food.

instances when we come to treat of the causes of diseases. V — This can being assumed I proceed next to inquire into the different degrees & Stages of animal life as I mentioned in our last Lecture — & I shall in- =quire into the State of Animal life in Sleep. ~~degrees of animal life.~~ —

~~And first, as it appears in Sleep.~~

In order to render this Subject intelli- =gible, it will be necessary to observe that all the stimuli that have been mentioned act upon a power which appears to be inherent in every muscular fibre called Excitability. what is the nature of this power is difficult to determine. Dr Cullen called it ether. ~~It has~~ This name has been ridiculed out of the University of

V Excitement & excitability in the healthy
State is one indivisable principle, and
perhaps alike in every part of the body.
It is They are, as I shall prove in
opposition to Dr Brown the reverse
of this in Sickness. - I have said
that I inclined to adopt the opinion
of excital being a substance, or
matter. The phenomina of
sleep make this probable.

Edin^r by Dr Gregory who has substituted
nothing in the room of it. —It ~~appears to~~ is
~~be~~ capable of accumulation &
denomination. ~~It is no opinion to be~~ It is distinct from
what is called Excitement which is
a term used to express the Vigor or
Strength of the System. Health consists
in a due proportion being kept up
between this Excitability & Excitement,
and ~~increased~~ the existing State, in a certain degree of each of them. It is the
excess of a disease which consists in
either this proportion between Excitement &
excitability, or a partial distribution
of each of them in the System.

Sleep is either natural or Artificial.
Natural Sleep is brought on by the
Diminution to a certain degree or point

of the excitability & excitement of the
System induced by the action of the
Stimuli that have been mentioned on
the System. When these Stimuli act
in a determined degree, that is, when
the same number of Stimuli act with the
the same force & for the same time
upon the System, it will be best on
at the same hour every night.
But when they act with unusual
force - or when any one of them is
unusual in degree or duration, I sleep
is best on at an earlier hour than
usual. - For Example. a long walk -
or ride -
by persons accustomed to a sedantary life -
- unusual exercise of the Understanding -
the action of
- strong passions or emotions - and

the continual application of unusual
Sounds seldom fail of inducing premature
Sleep. — ~~But~~ It is recorded as an extraord:
Anecdote of Pope Ganganelli that he
slept more soundly & longer than usual, the
night after he was raised to the papal
chair. It was probably owing to the
~~sudden and~~ high tide of joy which sud=
-denly wore Down the excitement,
& wasted the excitability of his system.
The effect of Unusual Sounds in inducing
Sleep is demonstrated in that early slee=
-pers which country people discover
the first or second days they spend in
a city expos'd from morning till night
to the constant & unusual noise of
Hammers - files & Looms & Carts = Wagons

Drays and Coaches rattling over pavements.
But further; Natural Sleep is brought on not
~~Artificial Sleep~~ ~~may be induced by~~
only by
~~Bastille~~ ~~Bastilles~~, the diminution, and
waste of excitement & excitab.ty ~~of actual~~
but it.
Absence
~~Sleep~~ is hastened by the ~~Abstractio~~ of
light - the cessation of sound - and labour,
and by the position of the body in a soft
bed, ~~each of which abstract from it~~

Artificial Sleep may be induced at any
time by the Abstraction of all the stimu=
=li which have been mentioned. For
example - Let a person at any time in
the day shut himself up in a dark
room, remote from the noise of the street
on his back,
or of a family; - let him lie down in
on a
~~a manner~~ soft bed - comfortable as to its
temperature, - and let him cease from
thinking upon subjects that are accom=
=panied with

reflex Sensations, or think only upon one Subject, and he will soon drop a sleep. Dr Boerhaave relates an instance of a Dutch physician who persuaded himself that he being was a violent State, and that sleep was the natural state of the System, and who by the practice I have mentioned, kept away whole days and nights till at length he impaired his Understanding & finally perished in a public Hospital in a State of Delirium. —

In inquiring into the cause of sleep you see I have said nothing of the effects ~~of cold~~ compression on the brain & of narcotics in inducing sleep. These belong to the Pathology & not to the Physiology. — I shall hint at the sleep

but on by cold, and narcotics only to illustrate my account of it. —

~~upon it then that~~ ~~they~~ ~~thereby~~

But if animal life depends upon ^e

action of Stimuli, how shall we account for its continuance during sleep when the power of receiving impressions is wasted, and when so many of the Stimuli are abstracted from it. I answer this question simply by re= =ceiving to that law in the System by which the absence of one stimulus is attended with an increased action of others. — Let us apply this law to the case before us.

At the usual hour of sleep, there is an abstraction of light — sound — & of the stimulus of muscular motion.

describe them

v But before I proceed to ~~enactm~~

horizontal

I shall remark that the position of

in sleep

the body, and the total relaxation of

every muscle, greatly favours the

impressful

action of less powerful stimuli

upon the hysteria in the sleeping ~~stat~~

~~in the waking~~ State. —

~~What are~~ The Stimuli ~~that are~~ =

~~are Sensorial life~~ which remain are
the Stimulus
Heat - Air - Aliment - or the ~~Ob~~
of a full
~~Absence of~~ Gall bladder from the
the Stimulus of a full
Absence of Aliment - and lastly the
Urinary bladder - the Stimulus of Feces in
the bowels -
voluntary exercise of the Understan=
=ding and passions in Dreams of each
in
of which I shall treat order *

The Heat of the body discharged and
confined under bed clothes acts with
considerable force upon the surface of
the body. It is most observable when
it is exhaled from a bed fellow - hence
a companion in bed is said to supply
the place of a blanket in winter.
It has in some instances done more
than this - it has restored departing
life when applied to the bodies of DD

people, — witness the damsel who ~~slept~~ lay for this purpose in the room of the King of Israel. — The advantages of this external heat will appear when we consider how impracticable, or how imperfect sleep is when we lay under the light covering. —

2 The Air continues, during sleep, to supply the lungs with that principle w. we shall soon call oxygen or pure Air w. ~~sleep~~ which we shall hereafter prove to be the cause of animal heat in= =ther directly or indirectly. By its gentle stimulus it keeps up the action of the lungs, and probably by its mixture with the blood it carries with it a stimulus to the left ventri= =cle

well known that it is
+ It is during the sleep of plants that
they discharge their unwholesome air.

of the heart, and the beginning of
the Aortic System. I am disposed to
believe that ~~it is the case~~ Phlegiston
is decomposed, & Phlogisticated, ~~is discharged in more~~ ~~Phlogis~~ Air
~~is absorbed~~ during ~~the night~~ sleep than
any other time, - for the smell of a
close
room in which a person has slept
one night is much more disagreable,
than of a close room in which
half a dozen healthy persons have
sat during the same number of
hours in the daytime. The deep &
slow respiration which takes place
in sleep seems to favour this idea.
- ~~This additional~~ to the foregoing ~~Cough~~
~~action~~ has a manifest action

v hence ~~to~~ the greater fullness, and slow-
=ness of the pulse in sleep than in
the Waking state - ~~and~~ for this state of
the pulse I hope to prove hereafter
arises from the action of Stimuli upon
it - hence it occurs so uniformly after
the use of Opium. — Sleep then in one
respect resembles a fever in having the
excitement of the muscular fibres ab-
=stracted from them & concentrated in
the Arterial System. — ~~Perhaps owing~~
to ~~vascular action of Stimulii on it.~~ There
appears further to be a transmutation
of Sensibility into contractility during
sleep, by which means the arterial fibres
probably
are more easily moved than in the
waking state. That Sensibility is diminished in

upon the circulation of the blood, &
upon the whole arterial system. V There
are two facts I know which oppose
this Opinion — viz 1 Mr Jn° Hunter
found by a thermometer that
the body was one degree cooler in
the sleep than in the waking state,
2ly and the phenomena of fever
shew that the heat of the body is en-
=creased with the quickness of respira=
=tion. I am disposed to suspect
some fallacy in Mr Hunter's experiment,
for the more frequent occurrence of fever
in wealthy people
with its usual Symptoms of a dry tongue
and skin in sleep
than in the waking state
clearly proves that sleep

steps I shall prove, when I come to treat of that state of the System.

~~The Asterisks at~~ see p: ~~108~~ 210 of ~~Lecture~~ defence of blood letting — an Addition to printed work — on the importance of the Arterie in animal life. to be bo't in there.

also comp^{ar} of life to a free govern^t in pathology of poisons.

favours the generation & increase of animal heat. To the 2nd objection I answer that the depth and force of respiration in Sleep may compensate for its quickness in fact in generating heat. 3 There is one fact with respect to respiration in Sleep which shews its immense consequence in supporting animal life, and that is, its becoming short and quick is always attended with a tendency to death. It is a constant symptom of the Night Mare, and this as I shall say presently is occasioned by a defect of Stimulus upon animal life

3 Aliment in the Stomach acts

more powerfully as a Stimulus in
Sleep than in the waking State. This
I prove from the Digestion going on
more rapidly when we are awake
(provided we are not)
than when we are asleep. - This is what
all of you must have experienced tho
have not met with sick people - But
further - Digestion goes on rapidly
in proportion to the number of the
Stimulis which act upon the System.
E.G: - In agreeable company after a
full dinner persons often become
hungry before they leave a cheerful
board. Now the less the digestion,
the greater the Stimulus of Aliment
in the Stomach. Of this we have
proofs in daily life. Laziness often

Object to milk as a breakfast because it digests too soon, - and often call for food in a morning that they can feel all day in their Stomachs. Oni- -ons and Cabbages are generally preferred by them for that purpose. - A moderate Supper is favourable to sound and easy Sleep, and the want of it in persons accustomed to it is often followed by a restless night. In persons who are not accustomed to it, it is probable that its Stimulus may be supplied by the fulness of the Gall bladder which always attends an empty Stomach. —

4 The Stimulus of the Urine accu- -mulated in the bladder during the

✓ 5. The fæces exert a constant stimulus
on the bowels. This is evident from the
languor and tendency to death which
ensue the discharge of ℥ss by a purge.

Sleep
~~night~~ has a perceptable influence
upon animal life. - It is some-
-times so great as to interrupt sleep
in the night, and I believe it is due
~~of the most~~ a frequent cause of over
at a regular hour
waking in the morning. It is more-
-over a frequent a cause of ~~y~~ exercise
of the Understanding & passions in
Dreams - hence we Dream more in
(when the bladder is full)
the ~~our~~ morning, - than in our
early or midnight Slumbers. V
5 The exercise of the Understanding and
Passions in Dreams is a considerable
Dreams
Stimulus to animal life. They do not
occur constantly, but they are never
absent where there is a deficiency
of ~~the~~ due force in the other Stimuli

I know a remarkable instance of the influence of the passion of avarice in an unfortunate citizen of Philad.a who has lately become immensely rich by the sudden appreciation of Certificates. This man frequently jumps out of bed in the night, seizes his pistols — runs to his door in order to look it — calls out examines his Desk & in one instance seized a person who slept in violently the same room with him, and accused him as if he had been a robber. I called this man unfortunate Gent.n because wealth acquired in any other way than by the gradual labor of the body or mind, seldom fails of producing misery — ~~Lord~~ the power of the will is still more evident from the history of Dr Cheyne's & Col. Townshend man who could suspend the action of the heart when he pleased.

which have been mentioned. Dreams
great, or
~~of two kinds~~ depend upon ~~to be~~
moderate degrees of morbid
~~laxity excess or deficiency~~ of action in the
vessels of the brain. I suspect the blood
= ~~depending to be~~ memory - and
the imagination to be exercised chiefly
Understanding &
in the former - and the passions in the
stimulating
latter case. — The passions are attended
with Volition - and this act of the mind
we know is always accompanied with
more or less stimulus. This Volition
rises sometimes in to actual motion
in the muscles of the body,
and hence the cause of persons walk-
= king in their sleep. The stimulus of
~~to be~~ but often awakens us ~~in~~
~~the~~ with pleasure or pain according
are disposed to
as we respect, or disobey the precepts
of ~~the moral law~~ our makers. The angry & revengeful

V Dr Bramebilla Plays: to the
Emp[r] of Germany - says he has
seen Soldiers who upon being
thrown into a passion in Dreams,
their wounds became inflamed
& gangrenous. ——

passions often deliver us ~~from~~ in like
manner from the fancied danger of a battle
~~or~~ and from the imaginary guilt of murder. — Even
the debilitating passions such as grief
and fear produce an indirect opera-
tion on the system — for they ~~lead~~
produce that sinking disorder called the
Night mare (~~which is from a languid~~
~~circulation of the blood in the brain~~)
~~and~~ which prompts us to speak or
hollow in our sleeps — and this by
quickening the respiration restores
the languid circulation throughout
~~every~~ the heart and brain. V — Do
not complain then yet: when
you are hostage by this midnight
Hag. She is kindly sent to prevent

an apoplexy or a sudden death.
I cannot dismiss this head without
lamenting that ~~phisicians~~ physicians
have attended so little to the Specific
Nature of Dreams. They have been
examined only by the weak, and
superstitious people with a View of finding
discovering future events, But the only
rational use ~~to be~~ that ought to be
made of them is to find out from them
the pre-
=sent State of the System. —

~~Let us next apply our principles~~
~~to explain some of the Phenomena of~~
~~Sleep —~~
~~There is a certain Stage of~~
~~Sleep, called excitement, and marked~~

+ Observat: Aspasia can't sleep whis watch in his ~~ear~~ Unless he buries it under his bed so as to drown y sound.

~~I have only to add to~~ Thus Gent:
have I endeavoured to explain ~~unfold~~ the
life in
State of animal Sleep, & I hope I
have proved that even in this state
of the System it is supported by Sleep.
Stimuli.
— Life is in its most perfect state when
we are awake — It it is a State of
diminution in Sleep — for Sleep there-
fore may be considered in one respect
as a tendency
to death. — I have only to add that
the Excitability of the System is
regenerated as it were during the
night by the abstraction of stimuli
has a wonderful effect in upon
animal life every day in the liv-
ing State of the body. This reproduc-
tion of excitability by the abstraction

I pass over for the present the history
of the origin of ~~animal~~ animal life in generation.
I hope to prove hereafter that it its first
pulse or motion is produced by the stimulus
of the Semen masculinum upon the
female ovum. In the mean while,
I shall only mention that Mr. Jn.° Hunter
has discovered the male Lead to possess
a pungent taste which is ~~insensible~~ speedily diffuses
itself over the tongue & mouth. —

"Novum fœtum a seminis masculi stimula
vetam concipisse. Haller Vol 8 p: 177

of Stimuli is a Law of the System. It will enable us hereafter to explain many of the phaenomena of dis=

=eases. —

I shall now quit the subject of Sleep for a ~~few~~ while. I have ex=
=plained those phaenomena which belong to the history of life. Hereafter I shall inquire more minutely into its causes - and describe its effects & uses in the System.

I proceed now to treat of the State of Animal life, in the different periods of human life. V

I In the Fœtal State, after the production of life, it is nour=
=ished by the heat which the Fœtus receives from its

connection with its mother in the womb —

2ly By the stimulus of its own circu=
=lating blood. and

3ly By muscular motion — for the
motion of a child in the womb is
not only the most certain sign of
pregnancy, but it continues with
for six months of that period. The
absence of motion for a few even
a few days always affords a pre=
=sumption that the fœtus is dead.

we come next to inquire how
II. Animal life is supported in

Infancy 1st, By the external
heat of the atmosphere — 2ly respi=
=ration — 3ly by the stimulus of the air on
its body — 4ly by its increasing activity

† also of the stimulus of Urine, faces, a
bilis, for the first wants acrimony, the
2nd factor, & the last bitterness. Haller p: 25
part 2nd 2d: 30

V Take notice here that Contractility
predominates over sensibility in Infancy.
~~Thus~~ they have less feeling, & a greater
disposition to motion than grown
people.
also by greater sensibility to heat
feet of Amblyeville & child living
on the back of his mother frozen to
death. They recover more easily from
acute diseases - were despair of a child -
viving to the capacity of life living in a
more sensible state, or to use D^r Dejeunes words
Their having greater tenacity of life. —

~~of its limbs and body, and by all the~~

Here we behold the System in a state
for a while
in which it is deprived of the stimulus
of exercise, and of the understanding
and passions - but this is amply
supplied, 1 by the greater excitabi=
=lity of their muscular systems to the stimulus
of light - sound & heat - and air.
So great is the stimulus of the first
two viz light & sound, y^t nature
has kindly defended their eyes, &
ears by imperfect vision & hearing
for several weeks after birth. V
2 by their feeding and sucking nearly
every hour in the day and night when
they are awake. I explained for=
=merly how

v Laughing ~~is an~~ ~~essential~~ seems to be a essential stimulus to in the life of a child - for it is universal, and seems to exist under all circumstances, in= =dependant of education or imitation. The child of a negro slave, born only to inherit the toils and misery of its parents, receives its future master with a smile every time he enters his kitchen or visits a negro Quarter. But Laughing exists in Infancy under circumstances still more unfavourable to it - a remarkable instance of which is related by Mr Bruce in his travels. After a journey of several hundred miles across the burning Sands of Nubia, he came to a well of water shaded by a few Scrubby trees. Here he ~~eat~~ intended to have rested during the night - but he had, not long reposed

food acts in stimulating the system.
The action of sucking supplies by the
muscles employed in it, the action
of mastication. —

3 by its constantly Laughing, or
crying. The effects of both on respi-
ration - the circulation of the blood,
& of course on animal life are
very great. ~~Laughing~~ Laughing is said
to encrease and prolong human
life according to Sterne. The common
saying of "Laugh & be fat", seems to
establish its efficacy upon the health
& figure of the body. But it is left
to stories that crying in infancy
has a wonderful influence upon

himself before he was aware by a
bruise of a rattling which
getting was to be perceived made by a
solitary Arab, equally fatigued & half
famished with itself, who was
=ning to plunder and murder him. Mr.
Bruce rushed upon him & made him
his prisoner. The next morning he was
joined by a half starved female com-
=panion with an infant of six months
old in her arms. In passing by this child
the Mr Bruce tells us, that it laughed - and
crowed in his face, and seemed ready to leap
upon him. I acknowledge that I met
with no fact in the Works of that
ingenious & enterprising traveller that
affected me more. This fact clearly demon-
=strated that laughing is not only an
essential characteristic of man, but

health & life. It is frequently remarked
with the first openings of passion.
I have seen so many instances of
the salutary effects of crying, that
I have learned the common saying
before mentioned, and satisfied myself
that is as possible for a child to "cry
& be fat", as it is to "laugh & be fat"

As infants advance to childhood,
and laugh & cry less - & eat & work
less constantly, they, use more exer-
-cise than adults. - Their bodies
~~in motion~~ their limbs - and their
tongues are always in motion.

They moreover continue to enjoy
the constant stimulus of food night & day,
for they often carry bread to bed with
them, and generally ask for it

that it is
" essential to the life of children — The child of
these Arabs had probably never studied any with
but such as was prepared from the prospect
flesh & it had probably never seen even
a smile upon the faces of its ferocious parents.
~~and its countenance~~

5. By Dreams. These begin very early
in children. Their sudden startings in
sleep I suspect are often occasioned by
them. I know from observation that
they are very common after 2 or 3
years old. —

6 By novelty. Every object of whatever
produced by nature or Art, is
new to a child, and is never seen

before they rise in the morning. It
is now their understandings & passions begin
to add their reflex stimulus to their system.
but so feeble is the former for some
time in its stimulus, that we find it
assisted by their giving vent to their
ideas as fast as they arise by ~~conversa-~~
~~tion~~ constantly ~~talking~~ prattling. This turn
for talking follows them to their beds,
where we often overhear them
talk themselves to sleep in a whisper,
or in low accents, to use but more
striking terms by thinking aloud.

III. In youth from the
influence of all the stimuli that
have been mentioned, and
more especially from the exercise

or felt by it without an emotion
of pleasure which acts as a stimulus
upon its whole system. The effects
of novelty upon animal life in
Infancy, may easily be conceived
from its influence upon health
in persons who visit foreign coun-
tries, & who pass months or years
in a constant succession of new
& agreeable impressions. They seldom
fail of ~~increasing~~ adding not only to
their health, but to corpulency.

of the passions human life is of-
-ten in excess. — From 15 to 35, those
the passions ("(to use a phrase of L^d. Bolingbroke's)
blow a perpetual storm".

The most predominating of them
in this period of life is the love of
pleasure. — no sooner is the excita-
-bility of the system worn down to
Stimulus
this system, that Ambition mounts
it in
IV the middle stage of life. when
this passion is moderate, it gently
feeds the flame of life. It is now
a mans life is in its most perfect
bills of
state — and hence mortality
the causes of life prove
that fewer people die between 40
and 57 than in any other

& pauses

v hence the slowness of their pulses &
hence their short & interrupted sleeps —

seventeen years of human life.

IV In old age - there is an evident
Abstraction of many of the stimuli
which support life. The eye light -
the hearing - & the sense of touch
are impaired. Lust is extinguished;
and ~~most of the passions expect the~~
~~cease to act on the system~~. In the
Understanding becomes torpid except
in those cases where it has acquired in early
life a relish for books. Exercise more-
-over becomes impracticable, or
inksome - and every thing indicates
to a superficial observer the tendency
of the system to immediate Dissolu-
-tion. V But here the divine Architect
shews that his wisdom is not exhaus-
-ted,

& that nothing shall defeat the designs
of his Godness. The absence and ~~dimin~~
diminution of all the stimuli which
have been mentioned are supplied
by the activity of certain passions.
These are generally ~~innate~~ intense and
protracted attention for ground
children & in young instances an enlarged vigor
in the moral ~~powers~~ but they are more frequent:
-ly, a violent and unnatural dis=
=affection to their own children —
— Perishness — ~~covetousness~~ malice —
and a constant hatred of the
manners and fashions of the rising
generation. Happily expressed by Horace
in the following words
Laudator temporis acti —
se puero — But the most steady
stimulus under this head is Avarice.

This passion knows no holidays. Its stimulus is ~~very~~ various, as well as constant for it finds new employment every day in the vast numerous means which Avarice has discovered to encrease - to secure - & to perpetuate wealth. -

2 The absence of ~~former~~ lost impressions are supplied in old age by Dreams - for I have found that old people dream every night - This is probably occasioned by their short & imperfect sleep.

3 - By the Stimulus of fluids rendered more acid by age. The Urine - the Sweat - & even the tears of old people, all possess a peculiar acrimony.

v and hence too the reason why cancers
are most common in the decline, than
in any other period of human life.

Their very blood ~~acquires~~ degenerates
from ~~in its~~ the mildness that is natural
to that fluid, and hence the difficulty
with which sores heal in old people.

5 By the stimulus of the faeces which
are frequently retained for five or
six days in old people. Costiveness
is ~~an~~ universal ~~one~~ of old age.

4 By, - the ~~great~~ increase in the quan-
-tity & by the peculiar quality of the
food taken by old people. They generally
eat twice as much as persons in the
middle of life, and like children they
love to eat often. They even prefer
cordial stimulating food, such as the
fattest meats - with the richest
gravies - also strong coffee - tea - & the
like. The ~~the~~ Stomachs of the celebrated

✓ It appears to be ~~none of~~ useful in every stage of life. hence the remark that silent women are generally unhealthy. —†

† ? By this meaning warm clothing &c. This is so true — that I could almost tell a man's age by first finding out at what degree of heat in Farenheits thermom: he found himself comfortable in a room. —

§ It is said that we are twice men & twice children. In speaking of Infancy, I remarked that contractibility predominated over sensibility. The same thing takes place in old age.

Pass who died in the 150th year of his
age in the reign of Charles 2nd was one of the first in England
found full of strong nourishing aliment.

6 By the passion for talking which
is so common among old people.
Hence the saying of "talkative old age."
& before speaking of the stimulus
of this action of the lungs
upon the
circulation, & on animal life.

There is some
difference between the number of stimuli
which
act on the two sexes in old people.
Men act generally longer than women
upon
. Women have the stimulus
of labor much longer than men.
They knit, and spin and even sew
after they lose the use of their eyes &
ears & even limbs. From each
of these employments gently stimulates

In consequence of this change in the
state of ~~their~~ the System in old people, all
the stimuli which have been mentioned
act upon them with much more force
than in middle life. — ✕ see p85.

the system. Men who survive the loss
of or decay of their teeth, generally pass
the evening of their lives in a vegetable
State in a Chimney corner. The
answer
Question therefore which the physician
gave his patient who asked him what
was good for
~~is~~ an Old woman? ~~was good for~~, was
a very absurd one. It was — "what
is an Old woman good for"? — ~~It~~
— ~~Is an Old woman good for~~
Question ~~It~~ Old ~~an~~ woman very
well suits their respective in
Domestic life. —

~~It was how I answered the state~~

~~of~~ × There is a remarkable pecu-
liarity in the constitutions of old
people in which they resemble the
constitutions of Children. Their

excitability is soon wasted, and

soon restored — Hence they frequently
sleep
~~doze~~ in the day time — hence too, they
& soon refreshed by a little rest ~~it~~ it
frequently returns ~~of their op~~ and the

inordinate degree of their appetites — &
lastly
hence the reason why a much
smaller quantity of liquor intox-
-icates them than in middle life.

An ignorance ~~of~~ this peculiarity in
the constitutions of old people is
~~partly~~ one reason why many ~~old~~
men formerly of sober characters
become Drunkards in their Old age.

Having surveyed the state of
animal life in all its stages, and
proved that it depends wholly upon
Stimuli acting upon the Sensibility,

& stimulability of the system, I proceed
next to inquire how far our theory
will apply to the ~~facts~~ phenomena
of certain diseases in which there
is an abstraction of some, or of all
the stimuli that I have mentioned.

1 many people are born ~~both~~ deaf
& blind - and dumb,
& ~~dumb~~ - and many people lose
~~the~~ & speech
the use of their eyes & ears by
diseases &c. - Here there is an absence
of light - sound & in one case of
speech &c. - The defect of these stimuli
is sensibly felt by the system, - for
all such persons become languid or
torpid in company. - But the
reflected stimuli
understanding - and the passions
in some cases - ~~tor~~ in some & Hamilton

a more exquisite

~~Ot~~ the Sense of ~~touching~~ touch in others, ~~by becoming more exquisite~~ ~~sensible than when obstructions~~, supply the place of all the stimuli which have ceased to act on y^e System.

The Sense of touch in some blind people has become so exquisite as to distinguish colors. The sense of hearing likewise by becoming more acute in blind people supply supplies the want of light. There are two blind young men Brothers in this city of y^e Name of Dutton - who can ~~distinguish~~ tell when walking across a Street by approach a post in the ~~the~~ by a peculiar sound (to us not only imperceptable, but inconceivable) which the ground under their feet

+ as family in maryland of the name
of Le connot becomeblind at the age of
= ty One, after which they acquire
an ear for music. —

units in the neighbourhood of the
ports. ~~They~~ Their sense of hearing goes
even beyond this, — they can tell the
names of half a dozen tame pidgeons
we with which they amuse themselves
in a little garden, by only hearing
each of them fly over their heads. Dr
Moyes ~~one~~ distinguished a friend dressed in black
by the ~~dress~~ of his coat. + I behold animal life in persons
who are devoid of understanding, and
passions, ~~as idiots~~ and who
from folly or imbecility of body, are
scarcely possessed of locomotive powers.
This is the case with many idiots.
But have an inordinate appetite
for food, or for venereal pleasures,
supplies the place of reason - passions
& exercise. Of the powers of the

last of these passions in an excessive degree we have many proofs. Dr Clayton tells us that the Cretins are much addicted to venery. Dr Michaelis tells us that the idiot whom he saw at the Pisaide falls in New Jersey who had passed 26 years in a cradle, confessed that he had venereal desires, and wished to be married, for the Dr adds, that he had some sense of religion on his mind, and of course he did not wish to gratify his depraved appetites at this in an unlawful manner. I will not add here farther

3 How is animal life supported in persons who have lasted for five

or six days in health, or for two or
three weeks in certain diseases par-
ticularly in fevers ? — I answer in
the former case it is supported by
the stimulus of a full gall bladder & by
the increased acrimony of the Urine
perspiration bile matter — breath — &
saliva. — The breath is so acrid after long fasting —
as to
draw tears from the eyes of persons
who are exposed to it — & the saliva often
excoriates the gums. 3 by the encreased
sensibility of the sense of touch generally, by
the encreased vigor and stimulus of
the Understanding. Of the last we
in London
have many proofs. Gamesters when
live
they play are about ~~to~~ generally ~~dine~~ for a day
or two on roasted apples & cold water.